

CLAIMS

What is claimed is:

1. A Voice-over-Internet Protocol (VoIP) system, comprising:
a network including at least two VoIP proxy servers configured to allow voice data to be transmitted and received over the network;
at least one VoIP client operatively coupled to the network to transmit and receive voice data over the network; wherein the at least one VoIP client connects to one of the at least two VoIP proxy servers in order to transmit and receive voice data; and
a network connection coupled to the at least two VoIP proxy servers for sharing workload data therebetween and the workload data is used to determine which of the at least two VoIP proxy servers the at least one VoIP client connects to in order to transmit and receive voice data.
2. The VoIP system according to claim 1, wherein one of the at least two VoIP proxy servers is a primary VoIP proxy server configured to automatically balance workload between the at least two VoIP proxy servers based on the workload data.
3. The VoIP system according to claim 2, wherein the one of the at least two VoIP proxy servers provides an identity to the at least one VoIP client in response to a client request to connect from the at least one VoIP client.
4. The VoIP system according to claim 3, wherein the at least one VoIP client connects to the one of the at least two VoIP proxy servers which has a workload below a predefined threshold.
5. The VoIP system according to claim 3, wherein the at least one VoIP client connects to the first VoIP proxy server determined to have a

workload below a predefined threshold in order to transmit and receive voice data.

6. The VoIP system according to claim 5, wherein the primary VoIP proxy server forwards the client request to connect and an identity of the at least one VoIP client to another one of the at least two VoIP proxy servers based on workload data shared by the at least two VoIP proxy servers.

7. The VoIP system according to claim 1, wherein the at least two VoIP proxy servers transmit workload data therebetween, periodically.

8. The VoIP system according to claim 1, wherein the at least two VoIP proxy servers transmit workload data therebetween, spontaneously.

9. The VoIP system according to claim 5, wherein the one of the at least two VoIP proxy servers currently processing the client request to connect forwards the client request to connect to another one of the at least two VoIP proxy servers based on workload data shared by the at least two VoIP proxy servers.

10. The VoIP system according to claim 5, wherein the forwarding of the client request to connect together with the identity of the at least one VoIP client continues to another one of the at least two VoIP proxy servers until a workload of one of the at least two VoIP proxy servers is determined to be below the predefined threshold.

11. The VoIP system according to claim 1, wherein the network is composed of one or more networks selected from a proprietary network, a network of leased facilities, the Internet, an Intranet, a wide-area network (WAN), a local-area network (LAN), a virtual private network (VPN).

12. The VoIP system according to claim 1, further including the at least one VoIP client coupled to a gateway coupled to the network, wherein the gateway controls access to the network.

13. The VoIP system according to claim 12, wherein the gateway comprises one or more of a VoIP gateway, a VoIP PTSN gateway, a media gateway, a router and an H.323 gateway.

14. The VoIP system according to claim 1, wherein the at least one VoIP client comprises one or more of an IP phone, a plain old telephone system (POTS) phone, a cell phone, a satellite phone, a microphone, a computer video camera with a microphone and, a multi-media computer configured to transmit and receive voice data.

15. A method for balancing workload on a Voice-over-Internet Protocol (VoIP) system including at least one VoIP client coupled to a network including at least two VoIP proxy servers and a network connection coupled to the at least two VoIP proxy servers for sharing workload data therebetween, comprising the steps of:

- (a) connecting to one of the at least two VoIP proxy servers by the at least one VoIP client in order to transmit and receive voice data;
- (b) sharing workload data between the at least two VoIP proxy servers coupled to a network connection; and
- (c) determining which of the at least two VoIP proxy servers the at least one VoIP client connects to in order to transmit and receive voice data is based on the workload data.

16. The method of claim 15, further including the step of balancing workload automatically between the at least two VoIP proxy servers based on the workload data

17. The method of claim 15, further including the step of providing an identity of the one of the at least two VoIP proxy servers with a lower workload to the at least one VoIP client in response to a client request to connect from the at least one VoIP client

18. The method of claim 17, wherein the workload is below a predefined threshold.

19. The method of claim 15, further including the step of transmitting and receiving voice and video data.

20. The method of claim 15, further including the step of connecting to the first VoIP proxy server determined to have a workload below the predefined threshold by the at least one VoIP client in order to transmit and receive voice data.

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